REMARKS

Claims 8-20 and 25-33 are pending in the application. Claims 5 and 21-24 are canceled without prejudice to the subject matter at issue and to merely simply issues for this amendment and possible appeal.

Claim 20 is amended in an editorial manner.

Claim 8 is amended to broaden its scope. We intend for the phrase "at least a second frequency component of the frequency components that is separate from the first frequency component" to cover many different implementations including non-overlapping first and second frequency components.

New claim 25 is a method claim that is very loosely modeled after apparatus claim 8. New claims 26-33 are dependent on claim 25.

The Office Action suggests that now-pending claims 8-20 are not entitled to the benefit of parent application 09/689,293, now U.S. Patent No. 6,683,966.

We respectfully disagree.

The following tables show examples of written description and enablement support for independent claims 8 and 25.

The table includes citations both to the current specification (shown with underlining) and to parent U.S. Patent No. 6,683,966 (shown with parenthesis) for the Examiner's convenience.

Of course, these tables are not meant to limit the scope of the claims, as other examples and implementations will surely fall within the recited claim scope.

Favorable reconsideration is respectfully requested.

Table 1: Claim 25

25. A method comprising:	See, e.g., page 16, line 23-24: "Fig. 4 is a flow diagram illustrating a method of embedding an authentication watermark into frequency domain regions of a media signal." (Pat. No. 6,683,966: Col. 10, lines 26-28).
receiving digital data representing an object, wherein the digital data comprises a plurality of frequency components;	See, e.g., page 16, lines 24-26: "The method starts with a media object (250) such as an image, video or audio signal, and transforms it into frequency domain regions (252)." (Pat. No. 6,683,966: Col. 10, lines 28-30). See also, e.g., page 17, lines 7-8: "The encoder separates the FFT coefficients into two or more regions, such as those shown in Fig. 5." (Pat. No. 6,683,966: Col. 10, lines 44-46). (Fig. 5 is attached to this Amendment as Exhibit A for the Examiner's convenience.)
producing first authentication information from at least a first frequency component of the	See, e.g., page 4, lines 2-4: "In addition, the watermark may be used to carry authentication information, such as a hash of

plurality of frequency components; and	the host signal, that is used to detect alteration." (Pat. No. 6,683,966: Col. 2, lines 52-55). See also, e.g., page 17, lines 19-22: "The watermark encoder performs the process of calculating the hash in one region . . . . Specifically, it calculates a hash function of region 1 (see Fig. 5) . . . ." (Pat. No. 6,683,966: Col. 10, lines 61-64).
incorporating the first authentication information into at least a second frequency component of the plurality of frequency components,	See, e.g., page 17, lines 21-22: "Specifically, it calculates a hash function of region 1 (see Fig. 5), and embeds it in region 2." (emphasis added) (Pat. No. 6,683,966: Col. 10, lines 63-64). See also, e.g., Page 18, lines 21-22: "In recursive embedding, the watermarked coefficients from one region form the input to calculate the hash to be embedded in the next region." (Pat. No. 6,683,966: Col. 11 lines 37-39).

wherein the second frequency component and the first frequency component are separate frequency components.	See, e.g., Fig. 5 (the separate coefficient regions). See also, e.g., page 17, lines 7-8: "The encoder separates the FFT coefficients into two or more regions, such as those shown in Fig. 5." (Pat. No. 6,683,966: Col. 10, lines 43-46).

Table 2: Claim 8

Apparatus which authenticates a digital representation of an object, the digital representation including frequency components and the apparatus comprising:	For "apparatus" please see, e.g., page 22, lines 7-10: "The methods, processes, and systems described above may be implemented in hardware, software or a combination of hardware and software." (Pat. No. 6,683,966: Col. 13, lines 47-49). For "authenticates" please see, e.g., page 4, lines 2-4: "Fig. 4 is a flow diagram illustrating a method of embedding an authentication watermark into frequency domain regions of a media signal." (Pat. No. 6,683,966: Col. 10, lines 26-28).

	And see, e.g., page 4, lines 2-4: "In addition, the watermark may be used to carry authentication information, such as a hash of the host signal, that is used to detect alteration." (Pat. No. 6,683,966: Col. 2, lines 52-55). For "digital representation including frequency components" please see, e.g., page 16, lines 24-26: "The method starts with a media object (250) such as an image, video or audio signal, and transforms it into frequency domain regions (252)." (Pat. No. 6,683,966: Col. 10, lines 28-30). And please see, e.g., page 17, lines 7-8: "The encoder separates the FFT coefficients into two or more regions, such as those shown in Fig. 5." (Pat. No. 6,683,966: Col. 10, lines 44-46).
an apparatus component which uses first information in at least a first frequency component of	Please see, e.g., page 4, lines 2-4: "In addition, the watermark may be used to carry authentication information, such as a hash of the host signal, that

the frequency components to produce first authentication information; and	is used to detect alteration." (Pat. No. 6,683,966: Col. 2, lines 52-55). See also, e.g., page 17, lines 19-22: "The watermark encoder performs the process of calculating the hash in one region . . . . Specifically, it calculates a hash function of region 1 (see Fig. 5) . . . ." (Pat. No. 6,683,966: Col. 10, lines 61-64). For "apparatus component" please see, e.g., page 22, lines 7-14 (Col. 13, lines 47-58); page 1, lines 24 – page 2, lines 5 (Col. 1, lines 34-45), Fig. 4, etc.
an incorporator which incorporates the first authentication information into at least a second frequency component of the frequency components that that is separate from the first frequency component.	See, e.g., page 17, lines 21-22: "Specifically, it calculates a hash function of region 1 (see Fig. 5), and embeds it in region 2." (emphasis added). (Pat. No. 6,683,966: Col. 10, lines 63-64). See also page 17, lines 19-21: "The watermark encoder performs the process of calculating the hash in one

	region and embedding it in another recursively." (Pat. No. 6,683,966: Col. 10, lines 61-63). See also, e.g., Page 18, lines 21-22: "In recursive embedding, the watermarked coefficients from one region form the input to calculate the hash to be embedded in the next region." (Pat. No. 6,683,966: Col. 11, lines 37-39). For "a second frequency component of the frequency components that that is separate from the first frequency component." see, e.g., Fig. 5 (the separate coefficient regions). See also, e.g., page 17, lines 7-8: "The encoder separates the FFT coefficients into two or more regions, such as those shown in Fig. 5." (Pat. No. 6,683,966: Col. 10, lines 44-46).

(As mentioned above, other implementations and apparatus will fall within the scope of these claims. Thus, citation to specific specification passages is not intended to limit the claims.)

Certainly the parent and subject specifications teach that first information (e.g., information from a first frequency component) can be used to produce authentication information. See, e.g., page 4, lines 2-4 ("In addition, the watermark may be used to carry authentication information, such as a hash of the host signal, that is used to detect alteration."); see also, e.g., page 17, lines 16-18 ("To detect alteration of a watermarked signal, this method compares a reference signal derived from a first region with a watermark message embedded in a second frequency domain region.").

The claims are believed to be enabled, adequately described and supported in at least our priority document 09/689,293 (October 2000), now U.S. Patent No. 6,683,966. Thus, the Zhao patent is not a proper reference against the pending claims.

We respectfully request that it be removed as a reference.

The application is believed to be in condition for allowance.

And notice of allowance is respectfully requested. Nevertheless, the Examiner is invited to telephone the undersigned at 503-469-4685 if any question remains.

Respectfully submitted,

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Attachment: Exhibit A: Fig. 5